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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/606,885	06/29/2000	Yuji Kuroda	SONY-T0850	7213

7590

04/22/2002

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EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT PAPER NUMBER

2653

DATE MAILED: 04/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/606,885

Applicant(s)

KURODA ET AL.

Examiner

Aristotelis M Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2001 and 11 February 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 5 through 17, 19 through 32, 34 through 58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5 through 17, 19 through 32, 34 through 58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 11 February 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

Specification

Applicants' responses of 12/12/01 and 2/11/02 have been considered with the following results.

The amendment to the title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Examiner considers the inventor feature to focus on the refractive indexes and as such should be included in this title.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations of claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. In particular, as argued and focused on by applicants' in his remarks in paper # 9 the refractive indexes are important. Nevertheless no such indication is readily apparent in the figures depicting the recording layers. Examiner draws applicant's attention to U.S. patent 6,064,642 figure 1 which indicates such an ability to be depicted in the figures. ✓
✓ The examiner **strongly recommends** incorporation of appropriate index labels along the lines depicted in this figure 1 for an understanding of the inventor feature as claimed.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention. ✓

2. Claims 16, 31, and 58 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a lack of written description rejection. *dup.*

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With respect to the limitations of claims 16, 31 and 58 that of a dye, again, the examiner can find no adequate written description to permit one of ordinary skill in the art know what dye(s) applicants are envisioning to be used with the invention.

Response to Arguments

3. Applicant's arguments filed December 12 2001 have been fully considered but they are not persuasive. In particular, the composition of the dye has not been disclosed. Furthermore, due to the nature of the refractive index limitation required by claim 1; identification of the appropriate time he envisioned by applicants is necessary to ensure such limitation is indeed available.

As far as the claims recite positive limitations the following rejections under art are made.

Claim Rejections - 35 USC § 102

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 5-8, 1314; 17, 21-24,29,30; 32, 36 – 39, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Nonoyama et al.

Applicants' attention is drawn to figure 1 and its disclosure. The examiner interprets layer 5 as the claimed first protective layer.

With respect to claims 5, 6, 7 & 8, applicants' attention is drawn to col. 5 line 47 to column 6 line 29. The limitations of these claims are interpreted to be present – note the materials recited (claim 8), the heat conductivity (claim 6), and the difference in conductivity between layers 5 and 6 (claim 5). With respect to claim 7, because the limitations of claim 8 – dependent upon 7 are found in the reference, the examiner concludes that the limitation re the quenching coefficient is inherently present.

With respect to claim 13 – the examiner interprets layer 3 as the limitation, and because the material is phase change type, the limitation of claim 14 is also considered met.

With respect to independent claims 17 and 32, applicants' attention is drawn to figure 2 and its disclosure. With respect to the dependent claims (21-24,29 & 30 and 36- 39 and 44) see the above discussion of claims 5-8, 13 and 14.

Response to Arguments

5. Applicant's arguments filed December 12, 2001 have been fully considered but they are not persuasive. Applicants' arguments have been considered with respect to the index of refraction limitation contained in the independent claim has not been found in the primary reference is not understood,

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because the recording material is indeed found, as is the protective layer which is the same as disclosed by applicant, and the heat radiating layer material is that disclosed. The examiner maintains the rejection.

6. Claims 2- 4, 19 – 20 and 34 –35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 above, and further in view of Novotny et al.

The existence of near field recording systems is considered known and taught by the Novotny et al reference. Although the Nonoyama et al system does not recite such a recording capability, the examiner considers the use of the recording system to be one of choice. Alternatively, using the record medium type of Nonoyama et al with the near field recording system of Novotny et al is also considered a selection of recording media.

It would have been obvious to one of ordinary skill in the art to modify the system of Nonoyama et al with the teaching from Novotny et al, motivation is to save valuable resources by using the near field recording methodology for the recording system of Novotny et al since such is considered a selection of alternative recording systems available to those of ordinary skill in the art for the inherent ability of increasing recording density. Alternative, modifying the Novotny et al system with the particular recording media of Nonoyama et al is considered obvious, a selection of all ready existing record media in this environment.

Response to Arguments

7. Applicant's arguments filed December 12, 2001 have been fully considered but they are not persuasive. The Novotny et al reference is relied upon as stated in the previous office action. Novotny et al is relied upon for the existence of a near field recording system. Hence the examiner maintains the rejection for the reasons of record.

8. Claims 45 – 50, 55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Novotny et al considered with Nonoyama et al.

The reasons presented above with respect to dependent claims 2 –4, 19- 20 and 34 –35 are repeated herein. Again, the overall near field recording ability with the claimed record media is considered obvious for the reasons stated above.

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Response to Arguments

9. Applicant's arguments filed December 12, 2001 have been fully considered but they are not persuasive. There reasons stated in paragraph 7 above are repeated.

10. Claims 9, 25, 40 and 51 rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1, 17, 32 and 45 above, and further in view of Yoshinari et al.

The limitation of these claims, plurality of layers for the film is considered to be taught by the Yoshinari et al reference – see figure 3 and its description for instance.

It would have been obvious to one of ordinary skill in the art to modify the system of the prior art as relied upon with respect to the independent claims with the teaching from Yoshinari et al, motivation is to increase the heat dissipation/radiation ability by substituting/ modifying the single layer with a plurality of layers as taught by Yoshinari et al.

Response to Arguments

11. Applicant's arguments filed December 12, 2001 have been fully considered but they are not persuasive. Applicant's argument with respect to the reference concerning the limitation of the recording material is not understood since this is not what the reference was relied upon. The rejection is maintained.

12. Claims 10, 26, 41 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1, 17, 32 and 45 above, and further in view of Okubo.

The limitation of these claims, that of the reflective metal layer in the appropriate position is considered known as taught by figure 2 of the Okubo reference.

It would have been obvious to one of ordinary skill in the art to modify the system of the art as relied upon with respect to the independent claims with the teaching from Okubo, motivation is to save valuable resources by using existing media using the appropriate metal reflective layer.

Response to Arguments

13. Applicant's arguments filed December 12, 2001 have been fully considered but they are not persuasive. The examiner maintains the rejection for the reasons of record, again the arguments with respect to the index of refraction and astounding claim 1 is considered met by the primary reference.

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14. Claims 11, 12, 27, 28, 42, 43, 53, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1, 17, 32 and 45 above, and further in view of Kikuchi et al.

The ability of having antireflection layers for their inherent use in this environment is known as taught by the Kikuchi et al reference.

It would have been obvious to one of ordinary skill in the art to modify the system of the art as relied upon with respect to the independent claims with the teaching from Kikuchi et al, motivation is to save valuable resources by using existing antireflection layer abilities in this environment for their inherent uses.

Response to Arguments

15. Applicant's arguments filed December 12, 2001 have been fully considered but they are not persuasive. Applicant's argument against the reference for not showing the transparent heat-radiating layer is not understood because the examiner has not relied upon the reference for teaching such. The grounds of rejection are maintained.

16. Claims 15 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 and 45 above, and further in view of either Takeuchi et al or Novotny et al.

The ability of using mo type of recording abilities as the recording technique is taught by either Takeuchi et al or Novotny et al.

The examiner concludes that selection of one type of recording technique over another is merely a selection between equivalents with no unexpected results seen to occur there from and predicated on routine engineering criteria such as availability, cost, etc.

It would have been obvious to one of ordinary skill in the art to modify the system of the art as relied upon with respect to the independent claims with the teaching from either Takeuchi et al or Novotny et al, motivation is to increase the flexibility of the base system by using alternative equivalent recording capabilities.

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Response to Arguments

17. Applicants' arguments filed December 12, 2001 have been fully considered but they are not persuasive. Reasons stated in the previous office action are maintained. Applicant's arguments focusing on the lack of the transparent heat radiation to be found in the Takeuchi et al reference is not persuasive since the reference was not relied for such a teaching.

18. Claims 16, 31 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1, 17, and 45 above, and further in view of the admitted prior art.

As far as the examiner concludes/interprets from the disclosure, the ability of using a dye as the recording material is merely a selection of equivalent recording layers. No unexpected results are seen to occur from selecting a recording layer using dyes as opposed to phase change type as opposed to no type.

It would have been obvious to one of ordinary skill in the art to modify the system of the art as relied upon with respect to the independent claims with the teaching from the admitted prior art, motivation is to increase the flexibility of the system by using alternative equivalent recording layers as available.

Response to Arguments

19. Applicants' arguments filed December 12, 2001 have been fully considered but they are not persuasive. Reasons stated in the previous office action are maintained. Applicant's arguments focusing on the lack of the transparent heat radiating layer has been considered but does not overcome the rejection with respect to the primary reference for the reasons stated above.

20. Claim 1, 5 -10, 13 and 14 are rejected under 35 U.S.C. 102(a) as being anticipated by Miyamoto et al. *-The examiner relies upon the PCT document WO 99/13466 pub. 3/18/1999.*

Applicants' attention is drawn to figure 1, and the associated disclosure with respect to the materials comprising the appropriate layers. The examiner interprets the heat diffusion layers as the claimed heat radiating layer(s). Remaining elements recited in the above noted depending claims are also met by the reference.

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21. Claims 17-26,29, 32-42,44-52,55-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto et al as applied to claims 1,5-10,13 and 14 above, and further in view of Novotny et al.

The secondary reference to Novotny et al is relied upon for the reasons stated in paragraph 6 above.

It would have been obvious to one of ordinary skill in the art to use secondary teaching with regards to a mere field recording system and use the appropriate medium found in the primary reference. This is considered a selection of alternative recording systems available to those of ordinary skill in the art for the inherent ability of increasing recording density. That the record of the primary reference is use the recording system is of course self-evident.

The remaining depending claims find clear support/parallel with the above noted depending claims 5-10, 13 and 14 and no further analysis is made thereto.

22. Claims 11,12, 27, 28, 42, 43, 53, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto et al as applied to claims 1,5-10,13 & 14 above, and further in view of Kikuchi et al.

The secondary reference to Kikuchi et al is relied upon for the reasons stated in paragraph 14 above.

It would be obvious to one of ordinary skill in the art to modify the above base system with the additional teaching from Kikuchi et al motivation is to save valuable resources by using existing antireflection layer abilities in this environment for their inherent uses.

23. Claims 15, 30 & 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto et al as applied to claims 1, 5-10,13 & 14 above, and further in view of either Takeuchi et al or Novotny et al.

Either of the secondary references is relied upon for the reasons stated in paragraph 16 above.

It would have been obvious to one of ordinary skill in the art to modify the system of the art as relied upon with respect to the independent claims with the teaching from either Takeuchi et al or Novotny et al, motivation is to increase the flexibility of the base system by using alternative equivalent recording capabilities.

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24. Claims 16, 31 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto et al as applied to claims 1, 5-10, 13 and 14 above, and further in view of the admitted prior art.

As far as the examiner concludes/interprets from the disclosure, the ability of using a dye as the recording material is merely a selection of equivalent recording layers. No unexpected results are seen to occur from selecting a recording layer using dyes as opposed to phase change type as opposed to mo type.

It would have been obvious to one of ordinary skill in the art to modify the system of the art as relied upon with respect to the independent claims with the teaching from the admitted prior art, motivation is to increase the flexibility of the system by using alternative equivalent recording layers as available.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Korzuch can be reached on (703) 305-6137. The fax phone numbers for the organization where this

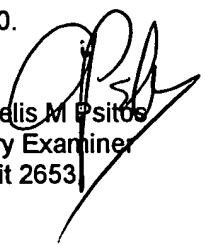
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application or proceeding is assigned are (703) 872-9314 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Aristotelis M. Psittos
Primary Examiner
Art Unit 2653

AMP
April 17, 2002